

ABSTRACT OF THE DISCLOSURE

There is provided a cache that includes a cache line, and an indicator associated with a unit-sized portion of the cache line. The indicator indicates whether the unit-sized portion is accessed. A method for determining an arrangement of data in a memory for efficient operation of a cache includes determining whether the unit of the data is accessed during an execution of code, and compiling the code to place the unit in a line of the memory if the unit is accessed during the execution. The line of the memory is designated to contain, in contiguous locations, a plurality of units of the data that are accessed during the execution.